

Nanomechanical Water Purification Device, Phase I

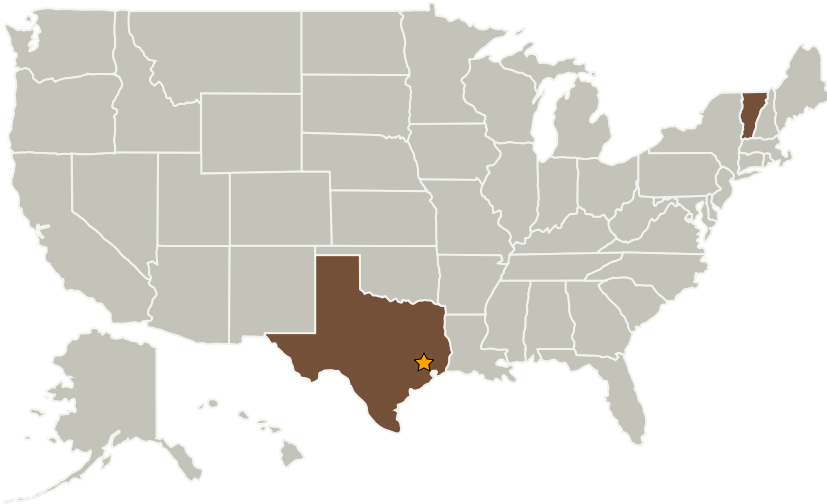
Completed Technology Project (2004 - 2004)



Project Introduction

Seldon Laboratories, LLC, proposes a lightweight, low-pressure water filtration device that harnesses the unique properties of nanoparticles to destroy or remove waterborne pathogens. A 2-inch diameter version of the device is estimated to allow a flux rate of 100 ml/minute at less than 0.05 psi. The device is composed of a conductive material that should limit fouling and promote the efficient recharging of the membrane. The innovation represents a significant advancement in membrane technology as it offers superior filtration effects with significantly reduced operating costs. The device could be incorporated into existing systems or designed as a standalone system for water treatment. It is expected that Phase I would demonstrate of the feasibility (efficacy and cost considerations) of the system and Phase II would result in prototype development.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ Johnson Space Center(JSC)	Lead Organization	NASA Center	Houston, Texas
Seldon Technologies, Inc.	Supporting Organization	Industry	Windsor, Vermont



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Johnson Space Center (JSC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Primary U.S. Work Locations

Texas

Vermont

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Christopher H Cooper

Technology Areas

Primary:

- TX07 Exploration Destination Systems
 - └ TX07.1 In-Situ Resource Utilization
 - └ TX07.1.3 Resource Processing for Production of Mission Consumables